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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/071,528

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Michel Moulin

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EXAMINER

FEGGINS, KRISTAL J


ART UNIT

PAPER NUMBER

2861

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/071,528	MOULIN ET AL.	
	Examiner	Art Unit	
	K. Feggins	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 18-27, 37, 39 and 41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 39 is/are allowed.
- 6) ☒ Claim(s) 1-10, 18-27 and 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 9-10, 18-23, 26-27, 37, 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Schuster et al. (US 6,222,567 B1).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

#### **Schuster et al. disclose the following claimed limitations:**

\* regarding claims 1, 18, 37, 41 an apparatus and method (disclosed by apparatus) for providing substantially intimate rolling contact between a donor sheet/transfer tape, 8/ and an acceptor element/substrate on cylinder, 1/ in a laser-induced thermal transfer printer (Abstract, fig 1) comprising:

\* a laser imaging head/laser writing head, 2/ (col 3, line 59, figs 1-2)

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the apparatus comprising:

- \* a rotatably mounted/having a shaft, turns/ cylindrical drum (figs 2-4, 5-8 & 10);
- \* an acceptor element/substrate on cylinder, 1/ affixed to and supported by the cylindrical drum/1a/ (figs 1-3, 5-8, col 4, lines 7-9);
- \* a rotatably mounted/ having a shaft, turns/ dispensing roller/supply roll, 4/ for dispensing a donor sheet (figs 1-3, 5-8, col 4, lines 7-9);
- \* a rotatably mounted/having a shaft, turns/ receiving roller/rewind roll, 5/ for receiving the donor sheet, the donor sheet/transfer tape, 8/ being extended between the dispensing roller/supply roll, 4/ and the receiving roller/rewind roll, 5/ (fig 1-3 & 5-8, col 3, lines 49-60);
- \* a plurality of rotatably mounted/having a shaft, turns/ contact rollers, 6a, 6b/ configured to bring a portion of the donor sheet/8/ extended between the dispensing roller/4/ and the receiving roller/5/ into substantially coextensive contact/where the tape rest on a portion of the substrate width/ along the width of a portion of the acceptor element; contact along the width of a portion of the acceptor element/substrate on cylinder, 1/ (figs 1, 2 & 3);
- \* a laser imaging head/2/ adapted to move parallel to a longitudinal axis/movement of the head across the drum/ of the drum and relative to the donor sheet and acceptor element (fig 1), wherein the laser imaging head/2/ does not contact the donor sheet or the acceptor element/the beam contact the donor sheet and the laser resides between the transfer tape/ (figs 1-2, col 3, lines 49-64).

\* regarding claims 2, 19, wherein the acceptor element/substrate on cylinder, 1/ is affixed to the external surface/1a/ of the cylindrical drum/substrate cylinder/1/ (col 3, lines 65-67, figs 1-2).

\* regarding claims 3, 20; wherein the plurality of contact rollers/6a, 6b/ comprises a first contact roller/6a/ in contact with the /substrate/ cylindrical drum/1/ and a second contact roller/6b/ in contact with the cylindrical drum/1/, wherein the portion of the donor sheet/transfer tape, 8/ brought into substantially coextensive contact/where the tape rest on the substrate/ with the portion of the acceptor element/substrate on the cylinder, 1/ is the portion of the donor sheet/8/ located between the first contact roller/6a/ and second contact roller/6b/ (figs 1-3, col 3, lines 65-67).

\* regarding claims 4 & 21, wherein the first contact roller/6a/ is located proximate to the dispensing roller/supply roll, 4/ and the second contact roller/6b/ is located proximate to the receiving roller/rewind roll, 5/ (figs 1-3).

\* regarding claims 5, wherein the /substrate/ cylindrical drum/1/, dispensing roller/supply roll, 4/, receiving roller/rewind roll, 5/ and contact rollers/6a, 6b/ rotate in a synchronous manner (col 3, lines 59-64, col 4, lines 13-16, figs 1-3, 5-8) /Being that the transfer tape and the substrate on the cylinder drum travel at the exact speeds, it is inherent that the contract rollers rotate in sync with the supply, rewind rolls, because they turn in accordance with the drives of the supply and rewind rolls. Therefore the

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contact rollers, the cylinder, the supply & the rewind rolls rotate in a synchronous manner/.

\* regarding claims 6, 23, wherein the laser-induced thermal transfer printer comprises a laser imaging head for providing scanning laser (col 1, lines 49-57, col 3, lines 59-64) energy/beams/ to transfer material from the donor sheet/transfer tape/ to the acceptor element/substrate on the cylinder, 1/ to form a representation of an image on the acceptor element/1/, and wherein the portion of the donor sheet/8/ brought into substantially coextensive contact/where the tape rest on the substrate/ with the portion of the acceptor element/1/ is the portion of the donor sheet/8/ located proximate to the laser imaging head/2/ (figs 1-3, col 3, lines 50-67).

\* regarding claims 9, 26, wherein the apparatus does not comprise pressure plates to press the donor sheet/transfer tape, 8/ and the acceptor element/substrate cylinder, 1/ into substantially coextensive contact/where the tape rest on the substrate ( (contact rollers are used, col 3, lines 65-67).

\* regarding claims 10, 27, wherein the apparatus comprises a projection area/the area where the beam hits the transfer sheet/, and substantially coextensive contact /where the tape rest on the substrate/ between the portion of the donor sheet and the portion of the acceptor element/substrate cylinder, 1/ covers a substantial arcuate/arc, curving part of the drum where the transfer tape and the substrate meet; they meet

between the contract rollers 6a & 6b/ section comprising the projection area/the area where the beam hits the transfer sheet/ (see figs 1-3, col 3, lines 60-67).

\* regarding claim 22, rotating the cylindrical drum, dispensing roller, receiving roller and contact rollers in a synchronous manner (col 4, lines 13-16, figs 1-3, 5-8) /Being that the transfer tape and the substrate on the cylinder drum travel at the exact speeds, it is inherent that the contract rollers rotate in sync with the supply, rewind rolls, because they turn in accordance with the drives of the supply and rewind rolls; therefore the contact rollers, the cylinder, the supply & the rewind rolls rotate in a synchronous manner/.

\* further regarding claims 37, a method for transferring material between a portion of a donor sheet and a portion of an acceptor element in a laser-induced thermal transfer printer, wherein the donor sheet and the acceptor element define contact points and non-contact areas,

\* wherein material is transferred across the contact points and across the noncontact areas.

\* further regarding claim 41, an apparatus for transferring material between a donor sheettape/ and an acceptor element/substrate/ in a laser-induced thermal transfer printer (Abstract, figs 1-3, col 1, lines 9-14);

\* a rotatably mounted cylindrical drum/having a shaft, turns/ adapted to receive an acceptor element/substrate/ (figs 1-3);

\* a rotatably mounted dispensing roller/supply roll, 4/ adapted to dispense a donor sheet/tape, 8/ (figs 1-3, 5-8, col 4, lines 7-9);

\* a rotatably mounted receiving roller/rewind roller, 5/ adapted to receive the donor sheet, the donor sheet/tape, 8/ being adapted to be extended between the dispensing roller/supply roller, 4/ and receiving roller/rewind roller, 5/ (figs 1-3, 5-8, col 3, lines 49-60);

\* a plurality of rotatably mounted contact rollers adapted to bring a portion of the donor sheet extended between the dispensing roller and receiving roller into contact along the width/where the tape rest on a portion of the substrate width/ of a portion of the acceptor element (figs 1, 2 & 3);

3. Claims 7, 8, 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al. (US 6,222,567 B1) in view of Zwijsen (US 6080993) as applied to claims 1, 18, 29 respectively above, and further in view of Patel et al. (US 6,291,143 B1).

**Schuster et al. disclose all of the claimed limitations except for the following:**

\* regarding claims 7, 24, wherein the donor sheet comprises a transfer layer comprising a photothermal converter.



\* regarding claims, 8, 25, wherein the donor sheet comprises a transfer/colorant/ layer and a layer adjacent to the transfer/colorant/ layer which comprises a photothermal converter.

**Patel et al. disclose the following claimed limitations:**

\* regarding claims 7, 24, wherein the donor sheet comprises a transfer layer comprising a photothermal converter (col 13, lines 11-14) for the purpose of providing forming durable images.

\* regarding claims, 8, 25, wherein the donor sheet comprises a transfer/colorant/ layer and a layer adjacent to the transfer/colorant/ layer which comprises a photothermal converter (col 13, lines 11-14) for the purpose of providing an improved laser addressable thermal imaging media in which residual visible coloration from the laser absorber is minimized.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize a donor sheet that comprises a transfer layer comprising a photothermal converter; and a donor sheet that comprises a transfer layer and a layer adjacent to the transfer layer which comprises a photothermal converter, taught by Patel et al. into Schuster et al. for the purposes of providing forming durable images and providing an improved laser addressable thermal imaging media in which residual visible coloration from the laser absorber is minimized.

***Allowable Subject Matter***

4. Claim 39 is allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of claim 39 is the inclusion of the limitation of a laser induced thermal transfer printer that includes a plurality of units that comprises pairs of units comprising a first unit and a second unit, wherein the acceptor element is extended between a contact roller on the first unit and a free-rotating transfer drum, and wherein the acceptor element is extended between the free-rotating transfer drum and a contact roller on the second unit. It is these limitations found in the claim, as it is claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burberry (5,424,759) discloses dye rollers for a laser thermal dye transfer. Gaskill (US 5,675,369) discloses a two-sided color printing apparatus that includes first, second, third and fourth thermal printing assemblies. Reyner (US 6052144) discloses a printer that prints images on a continuous web, wherein the web transported has a slack loop station.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

5. Applicant's arguments filed 6/14/2004 have been fully considered but they are not persuasive. Please see the above new rejection.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., images an acceptor element in a single revolution) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that there is no motivation for the modification of Schuster et al. in view of Zwijsen nor for Schuster et al. in view of Patel et al., the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Furthermore, the test for combining references is not what the individual reference themselves suggest but rather what the combination of the disclosures taken as a whole would suggest to one of ordinary skill in the art. In other words, a reference is to be considered not only for what is expressly states, but for what it would reasonably have suggested to one of ordinary skill in the art.

In response to applicant's argument that Schuster et al does not disclose a laser imaging head that moves relative to a donor sheet and acceptor element is acknowledged. However, Schuster et al. does disclose a laser imaging head that moves relative to a transfer tape and the substrate. Schuster et al. discloses a tape guide mechanism that is jointly arranged on a traversing unit so that the transfer tape

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can be moved along the substrate width by the movement of the traversing unit. This shows that the movement of the laser writing head is being moved relatively to the transfer tape and the substrate. There is nothing stated in the claim that the two can not be move together or that the transfer tape should not be moved along with the head movement.

### **Communication With The USPTO**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
K. Feggins  
Primary Examiner  
September 3, 2004